

# SEQUENCE LISTING

<110> Olandt, Peter J.  
Meyers, Rachel E.  
Galvin, Katherine A.  
Millennium Pharmaceuticals Inc.

<120> 33945, A Human Glycosyltransferase and  
Uses Therefor

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 Arg Leu Thr Gly Gly Leu Glu Leu Ser Phe Glu Ile Gly Ser Asn Ala  
                                  165                                 170                                 175  
 Ile Tyr Arg Arg Glu Ala Phe Glu Glu Leu Phe  
                                  180                                 185

<210> 5  
 <211> 145  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> consensus

<400> 5  
 Arg Ser Val Phe Val Ile Thr Ile Leu Val Asn Gly Asn Ser Gly Arg  
   1                                 5                                 10                                 15  
 Cys Leu Asp Val Asn Ser Ser Ser Glu Ser Asp Gly Asn Gln Val Gln  
                                  20                                 25                                 30  
 Leu Trp Asn Cys His Ser Asn Pro Gly Lys Asn Gln Lys Trp Ser Leu  
                                  35                                 40                                 45

Thr Tyr Asp Glu Ser Asp Gly Glu Ile Arg Ser Val Val Asn Asn Asp  
 50 55 60  
 Lys Cys Leu Thr Val Asn Ala Asn Ser Pro Gly Ser Glu Val Lys Leu  
 65 70 75 80  
 Tyr Gln Cys Asp Ser Ala Thr Ser Asp Asn Gln Lys Trp Glu Leu Asn  
 85 90 95  
 Asn Asp Gly Leu Ile Gly Asn Lys Ile Leu Leu Asn Leu Val Asn Thr  
 100 105 110  
 Gly Leu Val Leu Asp Val Lys Gly Ser Asp Thr Gln Asn Gly Thr Lys  
 115 120 125  
 Leu Ile Leu Tyr Thr Cys Ser Gly Gly Arg Asn Gln Gln Trp Leu Pro  
 130 135 140  
 Thr  
 145

<210> 6  
 <211> 135  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> consensus

<400> 6  
 Arg Gly Tyr Phe Leu Ile Ile Gly Gly Asn Thr Gly Leu Cys Leu Asp  
 1 5 10 15  
 Val Asn Gly Asn Ser Glu Ser Lys Ser Asp Gly Asn Pro Val Gln Leu  
 20 25 30  
 Trp Asp Cys His Gly Gly Gly Asn Gln Leu Trp Lys Leu Thr Tyr Asn  
 35 40 45  
 Glu Ser Asp Gly Ala Ile Arg Ile Asn Ser Asp Leu Cys Leu Thr Val  
 50 55 60  
 Asn Gly Thr Val Thr Leu Tyr Ser Cys Asp Gly Thr Asp Lys Gly Asn  
 65 70 75 80  
 Asp Asn Gln Lys Trp Glu Val Asn Lys Asp Gly Thr Ile Arg Asn Pro  
 85 90 95  
 Lys Asn Ser Lys Lys Gly Val Asp Ser Gly Leu Cys Leu Asp Val Lys  
 100 105 110  
 Asp Gly Asn Lys Val Gln Leu Trp Thr Cys Asn Gly Ser Asp Ala Pro  
 115 120 125  
 Asn Gln Lys Trp Ile Phe Glu  
 130 135

<210> 7  
 <211> 166  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> consensus

<400> 7  
 Trp His Tyr Val Pro Glu Glu Glu Arg Lys Arg Arg Arg Lys Asp Pro  
 1 5 10 15  
 Thr Asp Pro Ile Arg Ser Pro Thr Met Ala Gly Gly Leu Phe Ala Ile  
 20 25 30  
 Asn Lys Glu Tyr Phe Glu Glu Leu Gly Thr Tyr Asp Pro Gly Met Asp  
 35 40 45  
 Ile Trp Gly Gly Glu Asn Leu Glu Leu Ser Phe Arg Val Trp Gln Cys

50		55		60
Gly Gly Arg Leu Glu Ile Val Pro Cys Ser His Val Gly His Val Phe				
65		70		75
Arg Lys Arg Ser Pro Tyr Thr Phe Pro Gly Lys Gly Ser Gly Lys Asp				80
	85		90	95
Val Ile Ser Arg Asn Thr Val Arg Val Ala Glu Val Trp Met Asp Asp				
	100		105	110
Tyr Lys Glu Tyr Phe Tyr Lys His Asn Pro Gln Ala Arg Lys Val Arg				
	115		120	125
Asp Phe Gly Asp Ile Ser Glu Arg Lys Glu Leu Arg Glu Lys Leu Gln				
	130		135	140
Cys Lys Ser Phe Lys Trp Tyr Leu Glu Asn Val Tyr Pro Asp Leu Tyr				
145		150	155	160
Val Pro Ala His Glu Pro				
	165			

<210> 8  
 <211> 578  
 <212> PRT  
 <213> Mus musculus

<400> 8

Met Ala Val Arg Trp Thr Trp Ala Gly Lys Ser Cys Leu Leu Leu Ala				
1	5	10	15	
Leu Leu Thr Leu Ala Tyr Ile Leu Val Glu Phe Ser Val Ser Thr Leu				
	20	25	30	
Tyr Ala Ser Pro Gly Ala Gly Gly Ala Arg Glu Leu Gly Pro Arg Arg				
	35	40	45	
Leu Pro Asp Leu Asp Thr Arg Glu Glu Asp Leu Ser Gln Pro Leu Tyr				
	50	55	60	
Ile Lys Pro Pro Ala Asp Ser His Ala Leu Gly Glu Trp Gly Arg Ala				
65	70	75	80	
Ser Lys Leu Gln Leu Asn Glu Gly Glu Leu Lys Gln Gln Glu Glu Leu				
	85	90	95	
Ile Glu Arg Tyr Ala Ile Asn Ile Tyr Leu Ser Asp Arg Ile Ser Leu				
	100	105	110	
His Arg His Ile Glu Asp Lys Arg Met Tyr Glu Cys Lys Ala Lys Lys				
	115	120	125	
Phe His Tyr Arg Ser Leu Pro Thr Thr Ser Val Ile Ile Ala Phe Tyr				
	130	135	140	
Asn Glu Ala Trp Ser Thr Leu Leu Arg Thr Ile His Ser Val Leu Glu				
145	150	155	160	
Thr Ser Pro Ala Val Leu Leu Lys Glu Ile Ile Leu Val Asp Asp Leu				
	165	170	175	
Ser Asp Arg Ile Tyr Leu Lys Ala Gln Leu Glu Thr Tyr Ile Ser Asn				
	180	185	190	
Leu Glu Arg Val Arg Leu Ile Arg Thr Asn Lys Arg Glu Gly Leu Val				
	195	200	205	
Arg Ala Arg Leu Ile Gly Ala Thr Phe Ala Thr Gly Asp Val Leu Thr				
	210	215	220	
Phe Leu Asp Cys His Cys Glu Cys Asn Thr Gly Trp Leu Glu Pro Leu				
225	230	235	240	
Leu Glu Arg Ile Ser Arg Asp Glu Thr Ala Ile Val Cys Pro Val Ile				
	245	250	255	
Asp Thr Ile Asp Trp Asn Thr Phe Glu Phe Tyr Met Gln Thr Gly Glu				
	260	265	270	
Pro Met Ile Gly Gly Phe Asp Trp Arg Leu Thr Phe Gln Trp His Ser				
	275	280	285	
Val Pro Lys His Glu Arg Asp Arg Arg Thr Ser Arg Ile Asp Pro Ile				
290	295	300		

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Arg	Ser	Pro	Thr	Met	Ala	Gly	Gly	Leu	Phe	Ala	Val	Ser	Lys	Lys	Tyr
305					310					315					320
Phe	Gln	Tyr	Leu	Gly	Thr	Tyr	Asp	Thr	Gly	Met	Glu	Val	Trp	Gly	Gly
				325					330						335
Glu	Asn	Leu	Glu	Leu	Ser	Phe	Arg	Val	Trp	Gln	Cys	Gly	Gly	Lys	Leu
			340					345						350	
Glu	Ile	His	Pro	Cys	Ser	His	Val	Gly	His	Val	Phe	Pro	Lys	Arg	Ala
		355					360					365			
Pro	Tyr	Ala	Arg	Pro	Asn	Phe	Leu	Gln	Asn	Thr	Ala	Arg	Ala	Ala	Glu
	370					375					380				
Val	Trp	Met	Asp	Glu	Tyr	Lys	Glu	His	Phe	Tyr	Asn	Arg	Asn	Pro	Pro
385					390					395					400
Ala	Arg	Lys	Glu	Ala	Tyr	Gly	Asp	Leu	Ser	Glu	Arg	Lys	Leu	Leu	Arg
				405				410						415	
Glu	Arg	Leu	Lys	Cys	Lys	Ser	Phe	Asp	Trp	Tyr	Leu	Lys	Asn	Val	Phe
			420					425					430		
Ser	Asn	Leu	His	Val	Pro	Glu	Asp	Arg	Pro	Gly	Trp	His	Gly	Ala	Ile
		435					440					445			
Arg	Ser	Met	Gly	Ile	Ser	Ser	Glu	Cys	Leu	Asp	Tyr	Asn	Ala	Pro	Asp
	450					455				460					
Asn	Asn	Pro	Thr	Gly	Ala	Asn	Leu	Ser	Leu	Phe	Gly	Cys	His	Gly	Gln
465					470					475					480
Gly	Gly	Asn	Gln	Phe	Glu	Tyr	Thr	Ser	Asn	Lys	Glu	Ile	Arg	Arg	Phe
				485				490						495	
Asn	Ser	Val	Thr	Glu	Leu	Cys	Ala	Glu	Val	Pro	Gln	Gln	Lys	Asp	Tyr
			500					505					510		
Val	Gly	Met	Gln	Asn	Cys	Pro	Lys	Asp	Gly	Leu	Pro	Val	Pro	Val	Asn
		515					520					525			
Ile	Ile	Trp	His	Phe	Lys	Glu	Asp	Gly	Thr	Ile	Phe	His	Pro	His	Thr
	530					535					540				
Arg	Leu	Cys	Leu	Ser	Ala	Tyr	Arg	Thr	Ala	Glu	Gly	Arg	Pro	Ser	Val
545					550					555					560
His	Met	Lys	Thr	Cys	Asp	Ala	Leu	Asp	Lys	Asn	Gln	Leu	Trp	Arg	Phe
				565				570						575	

Glu Lys

<210> 9

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus

<221> VARIANT

<222> (1)...(22)

<223> Xaa = any amino acid

<400> 9

Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Xaa
1				5				10						15	
Xaa	Xaa	Xaa	Xaa	Xaa	Leu										
				20											